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Spots suborbicular, minute, less in size than the head of a pin, visible on both surfaces of the leaf and surrounded by a raised border. Fertile threads fasciculate, septate, black or dark-brown, .001′—.0015′ in height, bearing at their tips the clavate, 3–5-septate, .0008′—0015′ long conidia; Only about two to four tufts of the fungus grow on each spot.

SEPTONEMA TABACINUM, E. & H.—Pulvinulis e tabacino nigris, sparsis; hyphis simplicibus, echinulatis, in conidiis cylindraceis, 3–4-septatis facile dilabentibus.

On indurated pitch on the bark of an old pine log. Newfield, N. J., Nov., 1880.

Tufts scattered, about the size of a small mustard-seed, snuff-colored at first, then becoming nearly black; erect threads simple, echinulate, constricted at intervals and separating into cylindrical, 3-4-septate, .0008′—.001′x.00014′ conidia.

§ 23. **Notes on the Flora of Presque Isle, Pa.**—Several visits which I paid last year to our large peninsula enabled me to add a few more species to the already large list of interesting plants found on that remarkable piece of land. The water in the ponds being unusually low during the latter part of the summer facilitated access to some places hitherto not visited. The muddy shores of the ponds abounded in *Utriculariae*, of which six species were found: *U. vulgaris*, L., *U. minor*, L., *U. intermedia*, Hayne, *U. gibba*, L., *U. resupinata*, L., and *U. cornuta*, L. *Sparganium minimum*, Bauhin, Fries, was found with prostrate leaves on places usually inundated. *Polygonum amphibium*, L., and *P. Careyi*, Olney, grew side by side on the margins of some of the ponds. Growing in shallow water, I found *Scirpus fluviatilis*, Gray, *Carex aquatilis*, Wahl., and *C. filiformis*, L. *Eleocharis quadrangulata*, R. Br., was never so thrifty before; both it and the wild rice (*Zizania aquatica*, L.) covered acres in the ponds, and presented a serious obstruction to the passage with boats. The wild rice was sown here a few years ago by the members of our Game and Fish Association in order to induce the ducks and reed-birds to make their homes on the peninsula. The soil and surroundings seem to be genial to this western grass, for it conquers more and more ground from year to year.

On dried, sandy places I found in spring, *Carex umbellata*, Schk., plentiful, and *Oryzopsis asperifolia*, Michx., sparingly; later in the season I added *Panicum glabrum*, Gaudin, *Bromus racemosus*, L., and *Lechea major*, Michx., as new acquisitions to my list.

There is one spot near the eastern end of Presque Isle, that is a perfect paradise for the botanist—a greater variety of beautiful and interesting plants being seldom found on so small a space. *Physostegia Virginiana*, Benth., is the first to adorn this spot with its long spikes of handsome purplish-tipped flowers, and it is closely followed by *Sabbatia angularis*, Pursh, finer specimens of which I have seldom seen. *Gerardia purpurea*, L., *Lobelia Kalmii*, L., *Linum Virginianum*, L., *Utricularia cornuta*, Michx., occupy the ground almost all at the same time, and are followed by *Spiranthes cernua*, Rich. A pleasing background to this natural flower-bed is afforded by a thrifty growth of *Cladium mariscoides*, Torr., *Carex Œderi*, Ehrh. and *Juncus alpinus*, Villars, var. *insignis*, Fries; while a few steps further off we find *Triglochin palustre*, L.

Prunus pumila, L., is described in Gray's Manual as "depressed and trailing, 6′—18′ high," but on Presque Isle we find this cherry often from 40°—60° in height. My most interesting find, perhaps, is a willow, which Mr. Bebb has now under examination, and which may be a variety of *Salix adenophylla*, Hook. Few new discoveries were made in the vicinity of Erie, the most interesting find being a patch of *Althaea officinalis*, L., discovered east of the city by J. Miller, a member of our Botany Section.

G. GUTTENBERG.

§ 24. **The Development of Sphaeria Solidaginis,** Schw.—This fungus, which is common on various species of *Solidago* all through the Atlantic slope of the United States, was first collected by Schweinitz in Carolina over half a century ago and described in his *Synopsis Fungorum Carolinae*, as *Sphaeria Solidaginis*; but in more recent times it has been referred to the genus *Dothidea*. Those who have observed this species in a living state have doubtless noticed the fact mentioned by Schweinitz that it is often found in company with an *Uredo*. It is to this peculiarity that I wish to call attention. As early, at least, as September the lower surface of the leaves on the Solidagos affected with this fungus will begin to show the presence of the *Uredo* (*U. Solidaginis*, Schw.), which, as Baron de Thümen has shown (Vol. vi, p. 216 of this journal), is really a *Coleosporium*.

The radical leaves will generally be the first affected, but, soon after, also those of the stem and even the bract-like leaves among the inflorescence. In some species, especially *Solidago lanceolata*, the branches of the panicle and the main stem itself are thickly dotted with the *Coleosporium*. By the middle of October, or sooner, it will be noticed that the orange-red color in many of the clusters of *Coleosporium* spores (especially those on the radical and lower cauline leaves) has changed to a dark-brown or nearly black, and an examination with a lens will show, not the spores of the *Coleosporium*, but a little black, subglobose, crustaceous stroma about the size of a large mustard-seed, and which is in fact the pycnidium of the *Dothidea*, and contains hyaline, fusiform, uniseptate stylospores, .0006′—.0007′ x .00015′. The perfect fruit or sporidia, which much resemble the stylospores, will not appear till the following spring or summer. Further examination will show that some of the *Coleosporium* clusters appear partly orange and partly brown or black; and, if a section be made of one of these and examined under the microscope, it will be seen that in the midst of the cluster of *Coleosporium* spores, the black, cellular, crustaceous stroma of the *Dothidea* is in process of formation.

From repeated observation of the facts here briefly stated I believe the *Coleosporium* to be the rudimentary stage of the *Dothidea*, and hope to be able during the coming season to collect and distribute, in the "North American Fungi," specimens to illustrate this view.

Newfield, N. J., Feb. 10, 1881. J. B. ELLIS.